

In The Matter Of:

*SIEGE INDUSTRIES, INC. v.
CLARK MFG., INC.*

*Glenn Gouldey
Vol. 1, March 11, 1996*

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SIEGE INDUSTRIES, INC. v.

Vol 1, March 11, 1996

CLARK MFG., INC

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(1) IN THE UNITED STATES DISTRICT COURT
 (2) SOUTHERN DISTRICT OF TEXAS
 (3) HOUSTON DIVISION
 (4)
 (5) SIEGE INDUSTRIES, INC.,
 (6) Plaintiff, Case No.
 (7) vs H-94-3180
 (8) CLARK MANUFACTURING, INC.,
 (9) d/b/a GUNDANCE SPAS, ROLAND CLARK
 (10) and W. JAMES CLARK,
 (11) Defendants.
 (12)
 (13)
 (14) DEPONENT: GLENN GOULDEY
 (15) DATE: Monday, March 11, 1996
 (16) TIME: 1:30 p.m.
 (17) LOCATION: 5445 Corporate Drive, Suite 400
 (18) Troy, Michigan
 (19) REPORTER: Rene L Twedt, RPR/CSR-2907
 (20)
 (21)
 (22)
 (23)
 (24)
 (25)

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(1) APPEARANCES: (Continued)

(2)
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 (10) and
 (11) EATON CORPORATION
 (12) BY: Mr. Roger Johnston
 (13) Eaton Center
 (14) 1111 Superior Avenue
 (15) Cleveland, Ohio 44114
 (16) (216) 523-4132
 (17) Appearing on behalf of the Witness.
 (18)
 (19)
 (20)
 (21)
 (22)
 (23)
 (24)
 (25)

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(1) APPEARANCES:

(2)
 (3)
 (4) CONLEY, ROSE & TAYON
 (5) BY: Mr. Timothy S. Westby
 (6) Texas Commerce Tower
 (7) 600 Travis Street
 (8) Suite 1850
 (9) Houston, Texas 77002
 (10) (713) 238-8000
 (11) Appearing on behalf of the Plaintiff.
 (12)
 (13)
 (14) RUTLER & BINION
 (15) BY: Mr. L. Farrell Crane, Jr.
 (16) Mr. Mark A. Tidwell
 (17) 1000 Louisiana
 (18) Suite 1600
 (19) Houston, Texas 77002
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 (21) Appearing on behalf of the Defendants.
 (22)
 (23)
 (24)
 (25)

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Monday, March 11, 1996
Troy, Michigan
1:30 p.m.

GLENN GOULDEY

was thereupon called as a witness herein, and after having been duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified.

**EXAMINATION
BY MR. CRANE:**

Q: Mr. Gouldsey, my name is Farrell Crane. I'm here with Mark Tidwell of the law firm of Butler & Union in Houston, Texas and we're here to ask some questions that relate to a lawsuit. Our client is Clark Manufacturing, Inc., and the Plaintiff in that lawsuit is Siege Industries, who is also represented here today.

I guess what I would like to start with. Have you had your deposition taken before?

A: Yes.

Q: So you know to make sure you understand the question that I ask before you answer it and to be sure that you respond verbally so the court reporter can

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(1) Q: And in the course of your employment with
(2) Eaton have you worked at other divisions of Eaton
(3) Overland Lectron?

(4) A: Yes, I have.

(5) Q: And what would those divisions be?

(6) A: Industrial Truck Division, Material Handling

(7) Parts Division, Temperature Controls Division,

(8) Appliance and Automotive Controls Division.

(9) Q: And over what period of time have you
(10) been employed by Eaton or one of their companies or
(11) divisions?

(12) A: I started with Eaton Corporation when I was
(13) still going to school back in 1972.

(14) Q: So you have effectively been employed by
(15) Eaton or an Eaton company from 1972 until the present?

(16) A: Correct.

(17) Q: Mr. Gouldsey, what were your primary
(18) responsibilities while you were employed at the
(19) Temperature Controls Division of Eaton?

(20) A: I was in a number of different jobs. Do
(21) you want me to go chronologically through them?

(22) Q: If you would.

(23) A: I went out initially as Materials and
(24) Purchasing Manager and Manager of Business Systems
(25) Implementation. I then became the Manufacturing

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take that information down?

A: Yes.

Q: Why don't we just start by giving us your name and residence address?

A: First name is Glenn, G-l-e-n-n, last name Gouldsey, G-o-u-l-d-e-y, 3681 Edinborough Drive, Rochester Hills, Michigan, 48306.

Q: Mr. Gouldsey, where are you currently employed?

A: Employed by Lectron Products in Rochester Hills, Michigan.

Q: Is Lectron a division or a subsidiary of any other company?

A: Eaton Corporation owns the stock of Lectron Products.

Q: Mr. Gouldsey, let me ask you to give me a brief summary, if you would, of your educational background, starting after your graduation from high school.

A: I got a Bachelor of Science degree in business at Trenton State University, New Jersey. I got an MBA from Rider University in New Jersey. I have attended various courses at Portland State University out on the West Coast, as well as Dartmouth College. Over the last ten, fifteen years, postgrad type courses.

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(1) Manager as well as the Materials Manager. Then after
(2) that I was Marketing Manager for the marketing of the
(3) temperature controls products. Then I became Plant
(4) Manager and ran the operation.

(5) Q: In connection with your employment at the
(6) Temperature Controls Division are you aware of any
(7) efforts by Eaton to develop a microprocessor-based
(8) control for spas and pools?

(9) A: Yes.

(10) Q: What period of time did Eaton begin to
(11) develop such a device?

(12) A: I can't answer when it was initiated, but I
(13) know I can tell the time frame that I'm familiar with
(14) activity.

(15) Q: That would be fine.

(16) A: Well, while I was the Marketing Manager from
(17) 1983 until 19 - early '87, we had activity going on
(18) trying to expand our electromechanical spa controls
(19) into electronic spa controls. There was activity going
(20) on before I became Marketing Manager in electronic spa
(21) control.

(22) Q: So you first became aware of such activity
(23) in 1983, simply because that's when you began in the
(24) marketing efforts of the company?

(25) A: Correct.

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[1] Q: But you're aware that that type of
[2] development had been going on prior to 1983?

[3] A: Correct.

[4] MR. CRANE: Let me get you to mark this
[5] as Exhibit A or 1, however you want to.
[6] (Marked for identification:

[7] Deposition Exhibit No. 1.)

BY MR. CRANE:

[8] Q: Mr. Gouldley, let me ask you first if you have
[9] seen that document before?

[10] A: Yes.

[11] Q: And, in fact, this is the Notice of
[12] Deposition or a Request for Production of Documents
[13] that was provided to your Counsel pursuant to which
[14] you're appearing here today; is that correct?

[15] A: To the best of my knowledge. That's how I
[16] got it.

[17] Q: Let me ask you to look over on what is
[18] Exhibit B to that Notice of Deposition.

[19] A: What was the letter?

[20] Q: B. It's two pages from the end, and ask you
[21] if that's a document that you recognize.

[22] A: It's a type of document that I recognize.

[23] Are you asking this specific document?

[24] Q: I'm asking, have you seen that particular
[25]

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[1] Q: Let me ask you to turn the page, which is the
[2] second page of Exhibit B, and ask you if you recognize
[3] that document.

[4] A: Yes.

[5] Q: Could you identify it for me?

[6] A: It's a document that shows an electronic
[7] control with a temperature probe device, visual LED
[8] display.

[9] Q: In your marketing job at Eaton did you have
[10] reason to understand how these documents worked, I
[11] mean, what this particular device did?

[12] A: Yes.

[13] Q: Could you explain that to us generally?

[14] A: What this device is basically doing is
[15] it is monitoring the temperature of the system,
[16] providing output to turn on or off a relay or
[17] energizer/de-energizer relay, based on what the
[18] signal is coming in from the temperature probe.

[19] Q: And it was primarily to be used in spas or
[20] pools?

[21] A: Yes, this.

[22] Q: And what would be the practical - if you
[23] were telling me, if I didn't know anything about
[24] patents or that type of thing, what would that
[25] particular device be used for?

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[1] document before?

[2] A: I have seen this one before.

[3] Q: Tell me, what would have been the purpose for
[4] the preparation of this document?

[5] A: For providing information when a quote or
[6] sample was being provided to a customer or a product
[7] was being developed for display to a customer.

[8] Q: So this would have been a document prepared
[9] at the Temperature Controls Division of Eaton to be
[10] provided to a customer or potential customer?

[11] A: Correct.

[12] Q: And in this particular case, it involves a
[13] particular microprocessor-based control system called a
[14] Spa Monitor II?

[15] A: Correct.

[16] Q: Do you know about what date this document
[17] would have been prepared?

[18] A: I couldn't tell you without looking at the
[19] date on it, but I would say '83, '84, and it's dated
[20] '83, so I would say 5-24-83.

[21] Q: Do you know who prepared this document or who
[22] would have been responsible for preparing this type of
[23] document?

[24] A: It would have come out of the engineering
[25] group at Beaverton, Oregon.

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[1] A: This device, just as is, would be used for
[2] regulating the temperature in a hot tub, a spa, for
[3] both maintaining temperature at a set required or a set
[4] temperature for the user, as well as providing a high
[5] limit temperature protection and potentially a freeze
[6] protection to allow it not to freeze up at low
[7] temperature.

[8] Q: And so then explain to me again, if you
[9] would, there is a temperature probe on this device that
[10] measures the temperature of the water and then based
[11] upon set inputs, how does it work; does the signal get
[12] sent to a microprocessor?

[13] A: The signal coming out of the resistance
[14] change in the thermistor would be interpreted or
[15] correlated into that change in temperature and
[16] there would then be a signal to either energize or
[17] de-energize the output relay based upon what the
[18] temperature setting is, the desired setting of the
[19] user of the device or the user of the pool or the spa.

[20] Q: Do you have any specific recollection of
[21] companies or individuals who may have received this
[22] particular memorandum, Exhibit B to Exhibit 1?

[23] A: I can't say for this exact memorandum, but
[24] something of this nature.

[25] Q: Do you know any particular companies that

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Q: Spa Monitor II may have been marketed to from Eaton?

A: Yes.

Q: Who were those companies?

A: A company, Ramco Manufacturing.

Q: And do you know approximately what time period that marketing would have taken place?

A: In 1983, and potentially earlier. They were one of the earlier ones that this was being worked with.

Q: Do you know if a document of this type or information regarding Spa Monitor II would have been sent to a company known as Balboa Manufacturing or Balboa Controls?

A: Very possibly. They were of the same time frame. Also Hot Water Products.

Q: In addition to Spa Monitor II, were there other embodiments of this device that Eaton was involved in developing?

A: This, the Spa Monitor II was a more cost effective approach, as I recall. There was an earlier design which was too expensive, multiple temperature probes, just not cost effective for the initial proposals that went out.

Q: Could you explain to me some of the similarities between the previous embodiments and

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(1) A: It was prior to my being Marketing Manager.

(2) As I came in as Marketing Manager, it was -- the issue (3) was already there that the electronic device that we (4) had was too expensive, that the multiple probes were (5) not going to get us any business.

(6) Q: And why did you believe that multiple probes (7) would not be economical?

(8) A: Cost.

(9) Q: The cost?

(10) A: There was a cost target and we couldn't (11) attain that cost target.

(12) Q: Are you aware of Eaton undertaking any (13) marketing efforts with respect to some of the previous (14) embodiments?

(15) A: Yes, that's how we became aware that it (16) wasn't going to sell.

(17) Q: Do you have any information as to who may (18) have received marketing materials?

(19) A: I don't have any, no. I was -- it was prior (20) to my coming in. I recall Ramco being part of that, (21) but beyond that, I could not tell you anybody else.

(22) Q: Were there any subsequent embodiments of (23) Spa Monitor II after this particular marketing and (24) marketing of this particular device?

(25) A: There was -- there were other iterations

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this particular device?

A: The previous had multiple temperature inputs beyond just a single thermistor probe. The driver, as I recall on this one, was to try to come up with a system that could utilize one probe to take out a significant amount of cost, and at the same time be able to provide all of the approved features without compromising any issues for failsafe and high temperature shutdown.

Q: When you say approve, approved by?

A: Underwriters Laboratories was the driver we tend to try to go by.

Q: Did some of the previous embodiments to this device work in essentially the same input, through one or more temperature probes into a microprocessor?

A: Yes.

Q: Which then controlled the heat or flow of water?

A: Yes.

Q: Do you know what time period the development of those previous embodiments of that device would have been undertaken by Eaton?

A: It was prior to the -- the versions earlier than this, you're asking?

Q: Yes.

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(1) relative to the display. The display tended to have (2) an issue with washout from a bright, sunny environment (3) where it became difficult to see the visuals on the (4) display, so there was another iteration that dealt (5) with the display. Beyond that, I don't recall.

(6) Q: Did Eaton ever actually manufacture either (7) Spa Monitor II or some of the previous embodiments that (8) you have discussed?

(9) A: For the samples that were manufactured.

(10) Q: Would those samples have actually been sent (11) to potential customers or a customer?

(12) A: Yes.

(13) Q: And what would the customer typically do with (14) a sample that had been provided to him?

(15) A: Typically, fitted up in their system, monitor (16) it for functionality, use it for fit-up, assure that (17) the display fits where it should fit, that it can be (18) seen from various angles of wherever it's mounted in (19) the system.

(20) Q: Was Spa Monitor II ever commercially marketed (21) by Eaton?

(22) A: Not that I recall, other than making an (23) attempt to try to get business. I don't recall there (24) ever being volume production.

(25) Q: Was the Spa Monitor II or any of the other

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(1) embodiments ever marketed at marketing shows or trade
(2) shows by Eaton?
(3) A: Yes.
(4) Q: Do you know what time period that would have
(5) been?
(6) A: I believe the spa show of 1984.
(7) Q: Do you recall if in your files you have any
(8) marketing materials related to that show in '94 that
(9) would evidence the marketing of this particular device?
(10) A: I don't have any files on this. I have been
(11) out of the business for quite some time.
(12) Q: During the course of the development and
(13) marketing of the Spa Monitor II, were you aware of any
(14) other companies that were developing similar products?
(15) A: The only other one I'm aware of is Ramco. I
(16) know, was trying to do some work themselves.
(17) Q: And I may have already asked this, but I
(18) don't want - are you aware of whether Eaton actually
(19) sold any Spa Monitor II's commercially?
(20) A: I'm not aware of that, no. I'm not - I
(21) don't know.
(22) Q: Can you tell me where the spa show of 1994
(23) was held?
(24) A: Reno, Nevada.
(25) MR. CRANE: Let me get you to mark this

(1) of '83.

(2) Q: And that would have been prepared by a
(3) salesman and delivered to whom?
(4) A: This was prepared by the salesman upon
(5) completion of a sales call, sent in to the Sales
(6) Manager and generally a copy to myself as Marketing
(7) Manager.
(8) Q: Can you tell me generally what that
(9) particular memorandum is about?
(10) A: It's a memorandum talking about receiving a
(11) solid state temperature control from the factory and
(12) then going in and discussing it with the customer.
(13) It's talking about just a little detail on how to mount
(14) the circuit board in their enclosure. That's about it.
(15) Q: Now when it says solid state temperature
(16) control, is that the same as a microprocessor-based
(17) control?
(18) A: Yes.
(19) Q: Do you believe that that particular document
(20) relates to Spa Monitor II?
(21) A: Yes.
(22) Q: It does?
(23) A: Yes.
(24) Q: And so that would evidence that that
(25) particular salesman had sent a Spa Monitor II to

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(1) as Clark 2.
(2) (Marked for identification:
(3) Deposition Exhibit No. 2.)
(4) BY MR. CRANE:
(5) Q: Mr. Gould, let me show you what has been
(6) marked as Clark Exhibit No. 2 and ask you if you can
(7) identify that document.
(8) A: It's a document discussing Spa Monitor II
(9) giving a product description.
(10) Q: And like Exhibit B for Exhibit 1, it's a
(11) document that would have been prepared by Eaton to be
(12) sent out for marketing purposes?
(13) A: Correct.
(14) Q: Are you aware of whether Exhibit 2 was
(15) actually sent to any companies or individuals?
(16) A: I can't say that I'm aware of that, no.
(17) Q: And the date that's on the bottom of
(18) Exhibit 2 of January 13th, 1983. Would that be
(19) the approximate time period when that document was
(20) prepared?
(21) A: Yes.
(22) Q: Let me ask you to turn the page on Exhibit 2
(23) and ask you if you can identify that document.
(24) A: This is a salesman call report for Hot Water
(25) Products done by our salesman Bob Fulton in September

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(1) a potential customer and this was his memorandum
(2) regarding its delivery and their response?
(3) A: That's what it would indicate, yes.
(4) Q: And can you tell me the date on the bottom of
(5) that document?
(6) A: It's dated by the salesman, September 26,
(7) 1983.
(8) Q: If I could ask you to turn the page one
(9) more time.
(10) Can you identify that particular
(11) document?
(12) A: It's a sales call report from the same
(13) salesman for Hot Water Products referencing a sales
(14) call he made there in July of 1983.
(15) Q: And this would have been a sales call with
(16) respect to, again, the microprocessor-based control
(17) known as Spa Monitor II?
(18) A: Correct.
(19) Q: And let me get you to identify the following
(20) page, as well.
(21) A: This is a sales call report from August of
(22) 1983, again, by Bob Fulton to the customer, Hot Water
(23) Products, again, talking about the status of the solid
(24) state spa control.
(25) Q: And so essentially, am I correct in saying

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1 that the last three pages of Exhibit 2 are sales call
 2 reports reflecting, I guess, notes related to the
 3 marketing of Spa Monitor II, the microprocessor-based
 4 control that was prepared and developed by Eaton in
 5 1983?

6 A: Yes.

7 MR. CRANE: Want to take about a
 8 five-minute break?

9 MR. BRENNAN: Sure.
 10 (Brief recess.)

11 BY MR. CRANE:

12 Q: Mr. Gouldley, let me ask you again to look
 13 just a second for Exhibit 2 and let me ask you to
 14 confirm that those are documents that you produced in
 15 connection with the Request for Production that was
 16 made part of the Notice of Deposition given to you;
 17 is that correct?

18 A: I personally didn't produce them, but -

19 MR. BRENNAN: I think we will stipulate
 20 that they were produced in response. In other words, I
 21 don't think he personally secured them, is what you're
 22 trying to say?

23 THE WITNESS: That's what I'm trying
 24 to say.

25 BY MR. CRANE:

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11 considered in the design phase. The product was then
 12 tested internally to verify it performed to all the
 13 requirements of Underwriters Laboratories.

14 It was then submitted to Underwriters
 15 Laboratories where they themselves put it through
 16 specific tests of all the parameters required to verify
 17 it did, in fact, perform to their requirements, at
 18 which point you get Underwriters Laboratories
 19 certification if, in fact, they passed it to their
 20 level of requirement.

21 Q: In connection with Eaton's development and
 22 marketing of Spa Monitor II and some of the previous
 23 embodiments of that device, were you aware of any
 24 specific certification requirements relating to
 25 microprocessor-based spa controls?

1 A: There were issues, as I recall, relative
 2 to the ability to separate the functionality of the
 3 temperature regulation and the failsafe high limit
 4 tripout of the system. It was - as I recall, it was
 5 both - we did a lot of work relative to initially
 6 having multiple probes and then trying to get it down
 7 to a single probe and somewhat isolating the circuit in
 8 the software to try to comply with UL.

9 So at least during the 1982, '83 time
 10 period there were some specific certifications or

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1 Q: Let me ask you to turn again just to pages -
 2 I guess Page 2, and I note at the top there was a
 3 carbon copy of this document provided to you.

4 A: Correct.

5 Q: And I wanted to be sure that you had seen
 6 that document before today.

7 A: Yes.

8 Q: And also, I believe you were carbon copied
 9 with what is Page 4 of that document, as well; is that
 10 correct?

11 A: Correct.

12 Q: Mr. Gouldley, let me ask you for a second, you
 13 and I spoke briefly about UL approval or listing of
 14 this particular Spa Monitor II or other micro-based,
 15 microprocessor-based control systems and I wondered,
 16 could you describe briefly to me what's the process for
 17 obtaining a UL certification?

18 A: There is generally a document put together
 19 by Underwriters Laboratories that details the various
 20 tests that are required for getting Underwriters
 21 Laboratories certification on a particular product.
 22 Typically the process that is - was at
 23 least then adhered to was a product would be developed
 24 with all the best engineering thought to assure that
 25 all of the stipulations of the tests were being

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1 requirements by Underwriters Laboratories to obtain
 2 certification of this type of device?

3 A: For spa controls, yes.

4 Q: For spa controls, there were.

5 A: I can't tell you that was specifically how it
 6 was defined, but there was one for spa controls.

7 Q: Those would have been microprocessor-based
 8 spa controls?

9 A: I think just spa controls in general.

10 Q: Generally. Are you aware of whether Eaton
 11 ever provided Underwriters Laboratories with either a
 12 model of Spa Monitor II or any of the schematics or
 13 diagrams of it?

14 A: I'm not aware of that. I don't know.

15 Q: Would they have provided Underwriters
 16 Laboratories with any of the information regarding
 17 the previous embodiments of that device?

18 A: I'm not aware of that.

19 Q: With respect to the specific software
 20 involved in Spa Monitor II, was that developed by
 21 Eaton?

22 A: There was a development process that involved
 23 the two electronic engineers at Eaton. They were
 24 involved in the process. I don't know if that was
 25 the total process. I don't know.

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(1) Q: At or about the time Spa Monitor II was being
(2) developed and marketed by Eaton, do you have any idea
(3) of what the size of the market or industry was at that
(4) time for microprocessor-based spa controls?

(5) A: Very limited. It was just coming about.
(6) It was - at that time the industry, as I recall,
(7) was mostly electromechanical bulb and capillary
(8) expansion-type system controls. It was sort of just
(9) beginning to emerge, as I recall.

(10) Q: And that's the 1982, '83 time period?

(11) A: The '83 time frame.

(12) MR. CRANE: I don't think I have any
(13) other questions.

(14) MR. WESTBY: Take another about
(15) five-minute break?

(16) MR. BRENNAN: Sure.

(17) EXAMINATION
(18) BY MR. WESTBY:

(19) Q: Mr. Gouldrey, let me just ask you about, to
(20) start off with, the Spa Monitor II, did you - is it
(21) your testimony that that was never sold commercially?

(22) A: As a volume production product? I don't
(23) recall it being sold as a volume product.

(24) Q: Was it sold as a prototype?

(25) A: I know that there were prototypes provided

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(1) know how it occurred.

(2) Q: Were these prototypes typically given to
(3) potential customers?

(4) A: Not typically.

(5) Q: So you asked them for money in return?

(6) A: Generally there was money for earnest on both
(7) sides.

(8) Q: And what was the price that was asked for the
(9) Spa Monitor II?

(10) A: I don't know.

(11) Q: Did you ever provide a prototype to Hot Water
(12) Products?

(13) A: Yes.

(14) Q: And did they ever pay you for that prototype?

(15) A: I don't know.

(16) Q: Do you know how many prototypes you gave to
(17) Hot Water Products?

(18) A: I don't know.

(19) Q: Is that sort of information archived at
(20) Lectron?

(21) A: Lectron is a different company. There is no
(22) involvement here, no association between Lectron and
(23) this product.

(24) Q: Are the old documents of Eaton archived
(25) within the control of Lectron?

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(1) to the customers. That's all I recall as to how that
(2) occurred. I don't know.

(3) Q: And those prototypes were provided for
(4) evaluation?

(5) A: Correct.

(6) Q: And did customers ever call you back and tell
(7) you how the units performed?

(8) A: I have no direct recollection. I'm sure that
(9) occurred.

(10) Q: Did they send you evaluation forms back?

(11) A: I don't know.

(12) Q: Did Eaton provide them with evaluation forms
(13) to fill out on the unit?

(14) A: No, this was more typically direct engineer
(15) to engineer contact.

(16) Q: Informal?

(17) A: Particularly, yes.

(18) Q: Would there be any documentation regarding
(19) those kind of conversations?

(20) A: Not that I'm aware of.

(21) Q: You mentioned that Ramco was one of the
(22) companies that the Spa Monitor II was offered to.
(23) Did they end up purchasing a prototype?

(24) A: I can't say for sure. I don't know. They
(25) ended up - they ended up having a prototype. I don't

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(1) A: Not within the control of Lectron, no.

(2) Q: So those would all be Eaton documents?

(3) A: Correct.

(4) Q: And were those documents all searched in
(5) preparation for this deposition?

(6) A: To the best of my knowledge.

(7) Q: Are you aware if the Spa Monitor II was ever
(8) installed in a spa?

(9) A: I am aware of it being installed. I recall
(10) discussions of performance in a spa. I recall
(11) discussions of the sun washing out the LED in certain
(12) situations.

(13) Q: Who did you have those discussions with?

(14) A: Hot Water Products, to the best of my
(15) recollection.

(16) Q: Was performance of the unit discussed in
(17) those conversations with Hot Water Products?

(18) A: Yes.

(19) Q: And generally, what was the performance of
(20) the unit?

(21) A: Generally, the unit performed as well as
(22) expected.

(23) Q: And did Hot Water Products then purchase any
(24) further samples?

(25) A: There were other versions to try to better

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price position the product that were provided.

Q: Did Hot Water Products ask you to develop a commercial version of the Spa Monitor II?

A: They were - Hot Water Products wanted a commercial version in a particular price range with a particular target price, may be a better way to describe it.

Q: And was Eaton able to meet that price guideline?

A: It had become - it was difficult. We were having a hard time meeting the price guideline.

Q: Do you remember what the price guideline was?

A: Around \$25, I think. I don't know for sure.

Q: Did you ever end up commercially producing any Spa Monitor II's for Hot Water Products?

A: Beyond the samples?

Q: Beyond the samples.

A: Not that I remember.

Q: And how many samples would you guess that you gave to Hot Water Products?

A: I don't know.

Q: Ten or more?

A: Ten, thereabouts. Maybe a little more, maybe a little less. Somewhere in that range.

Q: Regarding UL, Underwriters Lab approval

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(1) sensor. Then there became issues relative to whether
(2) that was the best way to try to isolate the two
(3) circuitrics.

(4) Q: You testified that the Spa Monitor II was
(5) shown at the '84 show in Reno. Do you know if that was
(6) a spring or fall show?

(7) A: I believe it was the spring show.

(8) Q: Did you attend that show?

(9) A: Yes.

(10) Q: And what did Eaton display at the show?

(11) A: There was a sample of the solid state spa
(12) control.

(13) Q: Was it installed in a spa?

(14) A: No. It was an informal.

(15) Q: Was it functioning?

(16) A: No. As a model function? Not that I
(17) recall. It was more a sample, a product sample
(18) display.

(19) Q: Were other products displayed by Eaton
(20) at that show?

(21) A: No.

(22) Q: That was the only product displayed?

(23) A: It was - it was taken to people at the show.

(24) Q: Did you have a booth at the show?

(25) A: No.

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(1) certification procedures, were attempts made by Eaton
(2) to seek UL approval for the Spa Monitor II?

(3) A: I don't recall.

(4) Q: Have you ever seen UL Standard 1563?

(5) A: Sounds like the standard that was in
(6) existence for spa controls.

(7) Q: And was that used in guiding the design of
(8) the Spa Monitor II?

(9) A: It was used both - I believe there was 1563,
(10) and I'm not sure if that covered the high limit reset
(11) or not, but the guidelines of the spa controls were
(12) used as the guidelines for trying to come up with
(13) Spa Monitor II.

(14) Q: Do you recall if there was an Underwriters
(15) Labs standard that required separate electronic
(16) circuits for temperature control and high limit
(17) control?

(18) A: I don't recall specifically electronic. I
(19) know that UL required there be a means to separate the
(20) temperature regulation and the high limit failsafe
(21) reset.

(22) Q: How close did Eaton come to meeting Hot Water
(23) Products' price guidelines?

(24) A: I think it was getting reasonably close
(25) once the multiple sensors were taken down to a single

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(1) Q: And what kind of interest did you generate at
(2) the '84 show?

(3) A: A fair amount of interest, if the price was
(4) right.

(5) Q: And what would a right price have been?

(6) A: I don't recall exactly, but I think somewhere
(7) around the \$25 range, but I'm not sure.

(8) Q: And at what price was Eaton capable of
(9) manufacturing that control at the time?

(10) A: Something higher than that.

(11) Q: Were you, at the time of the '84 show,
(12) talking to any potential manufacturers about buying
(13) the Eaton control?

(14) A: The spa monitor, the solid state control?

(15) Q: The Spa Monitor II.

(16) A: I believe Hot Water Products and Ramco.

(17) Q: So were you still talking to Hot Water
(18) Products and Ramco in 1984?

(19) A: I believe so.

(20) Q: So those conversations spanned from 1982 or
(21) so to sometime in 1984?

(22) A: Yes.

(23) Q: And do you know what Ramco planned to do with
(24) the controls when they purchased it?

(25) A: They planned to sell it in their spa system.

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[1] Q: Did Ramco eventually end up buying somebody
[2] else's control?

[3] A: I think Ramco, to the best of my
[4] recollection, ended up trying to create something
[5] themselves.

[6] Q: And was that a successful product?

[7] A: I don't know.

[8] Q: Is Ramco still in business?

[9] A: I don't know.

[10] Q: Are you aware of the reputation or lack
[11] thereof of the Ramco controller in the spa industry?

[12] A: No.

[13] Q: Now, you said that there were various
[14] versions of the Spa Monitor II that were developed
[15] prior to the version that is shown in Clark Exhibit 2;
[16] is that correct?

[17] A: Correct.

[18] Q: And you testified that those prior versions
[19] used more than one temperature probe?

[20] A: Correct.

[21] Q: And what type of temperature probe did they
[22] use?

[23] A: It's a sensing thermistor probe.

[24] Q: Prior versions used more than one thermistor?

[25] A: Correct.

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[1] Q: Were they the same thermistor for all the
[2] probes?

[3] A: I don't recall. I don't know.

[4] Q: Were those additional temperature probes
[5] connected to the same A to D converter as the cycle
[6] probe shown on the Spa Monitor II?

[7] A: I don't know.

[8] Q: Were those temperature probes connected to
[9] the single chip microcomputer as shown on the Spa
[10] Monitor II schematic?

[11] A: I don't know.

[12] Q: Can you describe the difference between a
[13] microcomputer and a microcontroller?

[14] MR. BRENNAN: I'm going to object to the
[15] form of the question.

[16] You can answer it, if you can.

[17] A: I think I would like a better definition of
[18] what you are asking.

[19] Q: Is there any difference between a
[20] microcomputer and a microcontroller, as far as you
[21] know?

[22] A: It depends on what the definition is.

[23] Q: How would you define it: how would you define
[24] a microcomputer?

[25] A: A microcomputer?

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[1] Q: Yes, microcomputer as that term is used in
[2] the schematic of the Spa Monitor II attached to Clark
[3] Exhibit 2.

[4] A: It's a - my definition of a microprocessor,
[5] if that's what you're asking, is a software that's
[6] taking information and performing some sort of routine
[7] on the information within the program of the silicon
[8] chip.

[9] Q: Is there any distinction between a
[10] microcomputer and a microprocessor, in your mind?

[11] MR. BRENNAN: I'm going to object to the
[12] form of the question.

[13] You can answer it.

[14] A: Is there - excuse me. Can you better define
[15] the question?

[16] Q: I'll withdraw the question.

[17] Do you know who manufactured the
[18] microcomputer that's shown in the schematic of the
[19] Spa Monitor II?

[20] A: I don't know.

[21] Q: Were any circuit diagrams ever developed for
[22] the Spa Monitor II?

[23] A: I'm sure they were, but I don't know that
[24] I've seen them.

[25] Q: Would they have been developed at the time

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[1] that you were the Manager of the Temperature Controls
[2] Division?

[3] A: It would have been in the time frame of 1983
[4] when I was Marketing Manager or earlier.

[5] Q: If any such printed circuit board diagrams
[6] had been developed, would you be aware of them?

[7] A: At this point in time or then?

[8] Q: At that time.

[9] A: If I had a need to go look at the design
[10] for any particular reason. The standard practice was
[11] all products, electronic or otherwise, had engineering
[12] designs and schematics that were pretty well laid out.

[13] Q: And would you routinely review those designs?

[14] A: Not particularly, not then.

[15] Q: Would it have been part of your job function
[16] in order to - would it have been part of your job
[17] function to review those designs as Marketing Manager?

[18] A: No.

[19] Q: Would you have ever given those designs to
[20] potential customers?

[21] A: It would depend on the circumstances. I
[22] don't know.

[23] Q: Did Ramco or Hot Water Products ever ask
[24] for any detailed circuit board designs for the Spa
[25] Monitor II?

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A: I don't know.

Q: Is the spa - was the Spa Monitor II mounted on a single printed circuit board?

A: There were a couple. It depends on how you define mounting. There was a single circuit board that was a version that had the LED on the circuit board. There was another version that had the LED with a ribbon cable for remote locating of the LED away from the board.

Q: Was there a key pad associated with the Spa Monitor II?

A: Yes. Let me - there was a key pad associated with one of the spa monitors, at least. I can't say for sure the Spa Monitor II.

Q: Is it shown on the schematic diagram that we have in the attachment part of Exhibit 2?

A: There is nothing specific that says key pad.

Q: How would one adjust the temperature set point with the device that's shown on the schematic attached to Clark Exhibit 2?

A: There would be a means of adjusting the temperature controller and that's probably where the key pad was located, but it's not defined here.

Q: It's not shown on that diagram?

A: The temperature controller, but the

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[1] there was a potentiometer on this particular drawing or
[2] whether it was key pad input, that's my point.

[3] Q: Well, the reason I'm asking is, the temp
[4] control seems to fall outside the line labeled "Eaton
[5] supplied equipment," so it looks like existing customer
[6] equipment. Do you know what that means?

[7] A: I'm not - I can't say what that was there
[8] for, other than we manufactured temperature control
[9] devices and that was our business.

[10] Q: Do you remember whether the sample Spa
[11] Monitor II's had a single printed circuit board?

[12] A: I honestly can't recall the samples that
[13] well.

[14] Q: Were they bread-boarded units?

[15] A: It was a - I really don't recall. I really
[16] don't have a good recollection of the units.

[17] Q: Can you point out on this diagram where the
[18] additional temperature probes in previous versions
[19] would be located?

[20] A: In recollection to this, in respect to this
[21] diagram, no. This diagram may not be pertinent to the
[22] earlier generations. I don't know. I couldn't say.

[23] Q: How would it differ, do you know?

[24] A: No.

[25] Q: Do you know whether the previous versions had

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terminology "key pad" is not shown.

Q: Can you point out the temperature control to me, please?

A: Where it marks temperature control.

Q: This box labeled temp control?

A: Yes.

Q: That would be the temperature controller?

A: Yes.

Q: The user would adjust that somehow to affect the set point?

A: There would be a means of input.

Q: But the temp control as it's shown here is not necessarily a means of input?

A: My only point is, it doesn't say "key pad" on it.

Q: Was there perhaps a rheostat?

A: No, the - all of the spa controls were all a key pad type of input, to the best of my recollection. The knob-type rheostat or shaft-type devices were all electromechanical devices.

Q: So that temperature control would have been provided by whoever Eaton was manufacturing the Spa Monitor II for?

A: Eaton would manufacture the temperature control portion, as well. I can't say for sure whether

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[1] a single chip microcomputer as that device is shown on
[2] this diagram?

[3] A: To the best of my recollection, there was
[4] only a single chip microprocessor.

[5] Q: Do you know how many A to D converters there
[6] were?

[7] A: I don't recall, no.

[8] Q: Do you remember how many DC power supplies
[9] there were?

[10] A: No.

[11] Q: How about relay drivers, do you remember how
[12] many of those there were?

[13] A: No. I would believe, as there was a version
[14] that I can recall that had multiple outputs to relays
[15] for both the override as well as the temperature
[16] regulation function.

[17] Q: So you believe there was an earlier version
[18] that had more than one relay driver?

[19] A: There was - that had an output. That's all
[20] I can answer.

[21] Q: And what would that output be used for?
[22] A: Turning on and off the relay.

[23] Q: That would be what is shown over here on the
[24] right of this diagram as "high limit control, break on
[25] high temp relay"?

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- (1) A: It's up - yes, over here (indicating).
 (2) Q: Now, did you say that there would be more
 (3) than one relay like that or there would be more than
 (4) one output to a relay like that?
 (5) MR. BRENNAN: I'm not sure I understand
 (6) the basis for that question. Could you read the last
 (7) question and answer back, please?
 (8) (Record repeated by court reporter.)
 (9) BY MR. WESTBY:
 (10) Q: You don't recall whether there was more than
 (11) one relay driver, that's your testimony?
 (12) A: I don't recall.
 (13) Q: In the Spa Monitor II, what would this relay
 (14) be connected to?
 (15) A: The relay for the temperature regulation
 (16) would provide the power going to the heater, if that's
 (17) your question.
 (18) Q: So this relay would be connected to, say,
 (19) 110 volts AC that would run a heater and a spa?
 (20) A: Or 240 or whatever the system is.
 (21) Q: And the function of this microcomputer is
 (22) to take the input from the single temperature probe
 (23) driver, the relay driver, in order to close this relay
 (24) when the temperature is below a set point, open it when
 (25) it's above a set point?

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- (1) A: Correct.
 (2) Q: Do you know anything at all about the
 (3) software that was used in that microcomputer for
 (4) the Spa Monitor II?
 (5) A: It was a dual software. I'll respond the
 (6) best I recall. I don't recall very well. It was a
 (7) dual software microprocessor for both the spa controls
 (8) as well as water bed controls, which was another
 (9) product that we supplied out of the Temperature
 (10) Controls Division.
 (11) There were functions in there that
 (12) provided time capability for energizing the heat
 (13) function at a particular temperature, at a particular
 (14) time.
 (15) Q: You mean time of day?
 (16) A: Time of day, yes. There was also some
 (17) functionality in there for the water bed controller
 (18) which performed somewhat similarly. There was also
 (19) some logic in there for being able to accept a probe
 (20) that displayed outside, outside ambient temperature on
 (21) a water bed display for being mounted outside the house
 (22) somewhere and providing a display of what the outside
 (23) temperature was.
 (24) Q: Was this Spa Monitor II initially developed
 (25) as a water bed control?

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- (1) A: That monitor was developed as a spa control,
 (2) but the thought as I remember it was the microprocessor
 (3) was going to be used in both.
 (4) Q: The same microprocessor?
 (5) A: Correct.
 (6) Q: And the same people programmed both of those?
 (7) A: I - to the best of my knowledge.
 (8) Q: Was there an EPROM associated with the
 (9) microcomputer as it's shown on this diagram?
 (10) A: I don't know.
 (11) Q: Was there a clock on this microcomputer?
 (12) A: On the chip there was a function that created
 (13) a clock. On this particular one, I can't say. The
 (14) chip as programmed, though, did have a clock function.
 (15) Q: And how was the software loaded into the
 (16) chip?
 (17) A: It was programmed in through a chip
 (18) programmer, to the best of my knowledge.
 (19) Q: When used as a water bed controller, how
 (20) would the user set the time?
 (21) A: There was a display, display board key pad.
 (22) Q: The same key pad that would be used to enter
 (23) temperature information?
 (24) A: For the water bed, yes.
 (25) Q: On the earlier versions or earlier embodiments

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- (1) of the Spa Monitor II, were any of those ever -
 (2) attempts made to commercially market earlier versions
 (3) of the Spa Monitor II?
 (4) A: I believe so. That's where the information,
 (5) I believe, came from of it being too costly.
 (6) Q: And do you remember who Eaton attempted to
 (7) market earlier versions of the unit to?
 (8) A: I believe the same companies, at least.
 (9) There could have been more that I don't recall, but
 (10) the same two companies, Ramco and Hot Water Products,
 (11) to the best of my knowledge.
 (12) Q: And do you remember if any earlier versions
 (13) of the Spa Monitor II which had more than one
 (14) temperature probe were ever sold to any of those
 (15) people?
 (16) A: I don't know.
 (17) Q: Was there any advertising developed for
 (18) earlier versions of the Spa Monitor II that had more
 (19) than one temperature probe?
 (20) A: I don't know.
 (21) Q: Were there any technical papers written about
 (22) earlier versions of the Spa Monitor II with more than
 (23) one temperature control?
 (24) A: I don't know.
 (25) Q: Were earlier versions of the Spa Monitor II

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with more than one temperature probe provided with secrecy agreements when you gave people samples, like Hot Water Products and Ramco?

A: I can't answer that for sure. I don't know.

Q: Would it have been Eaton's practice to provide secrecy agreements with those units?

A: If there was reason to feel that something needed to be protected, that would be our practice.

Q: Do you remember whether you felt that there was anything about this control that needed to be protected?

A: That, I can't answer. I don't know.

Q: If there had been such secrecy agreements, would you have been the person who would have transferred them to Ramco or Hot Water Products or other customers?

A: I would not have personally transferred them, no.

Q: Would you have been aware that there were any transferred, if they had been?

A: Possibly, but not necessarily.

Q: This is during the time you were Marketing Manager?

A: Yes.

Q: As Marketing Manager, would it have been your

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(1) to discuss marketing the Spa Monitor II to Hot Water Products?

(3) A: I can't say that for sure. I don't know.

(4) Q: Was he the first one you're aware of?

(5) A: First one I'm aware of, yes.

(6) Q: So you're not aware of any efforts to market the Spa Monitor II to Hot Water Products prior to the time Bob Fulton was talking to them?

(8) A: I'm not aware of that, no. I just don't know.

(10) Q: Still referring to Eaton 3, do you know who Jim Morton is?

(12) A: Yes.

(13) Q: And who is he?

(14) A: Jim Morton, Sr. and his son ran Hot Water Products.

(16) Q: Looking about three lines down in, I guess, Bob Fulton's comments, he says a heater pack was sent to Mears and they requested a response by July 29th. Do you know what heater pack he is referring to?

(18) A: The spa pack that was the heater control unit made by Hot Water Products.

(20) Q: So Hot Water Products is sending their spa pack to Mears?

(22) A: Correct.

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(1) practice to communication with people like Ramco on Hot Water Products that you were trying to market temperature controllers to?

(3) A: Yes.

(5) Q: Is it a reasonable assumption that if there had been any such secrecy agreements that you would have been aware of them?

(7) A: It's a reasonable assumption I would have been aware of many of them.

(9) Q: And you're not aware of any?

(11) A: I don't recall. I have no memory of it.

(13) Q: Would you have also been aware if any of the prior versions of the Spa Monitor II with more than one temperature sensor had been sold to any of those customers?

(15) A: Not necessarily. I believe those were prior to my being Marketing Manager. I don't have a lot of recollection on those at all.

(17) Q: Referring to Clark Exhibit 2, the document labeled Eaton 3, the salesman whose name I can't quite read, may be Bob Fulton?

(19) A: Fulton, Fulton, yes.

(21) Q: Did you know Bob Fulton?

(23) A: Yes.

(25) Q: Was Bob Fulton the person, the first salesman

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(1) Q: And why are they sending that spa pack to Mears?

(3) A: It doesn't say specifically.

(5) Q: And you don't recall?

(7) A: I believe for fit-up of the unit, but I don't know for sure.

(9) Q: So they may be sending a heater pack for you to try the Spa Monitor II on?

(11) A: To put one on and send it back to them, I believe.

(13) Q: Do you know if it ever was sent back?

(15) A: To the best of my recollection, yes, I'm sure it was.

(17) Q: You're sure it was sent back?

(19) A: But I can't - I don't - I can't say positively, but I'm - there is no reason it would not have been sent back, may be a better way to say it.

(21) Q: Do you recall whether it had a Spa Monitor II attached to it when it was sent back?

(23) A: It would have had a solid state controller. I can't say it was a Spa Monitor II, but I would guess it probably was, based on this time frame.

(25) Q: So you guess it would have had some sort of temperature controller installed on it when you returned the Hot Water Products, but you're not sure

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[1] what that controller was?

[2] A: Correct. It would have been the solid state
[3] controller. It would have been a solid state control.
[4] but I'm saying I can't tell you by name Spa Monitor II
[5] is what it was called, but it would have been an
[6] iteration of this product of some type.

[7] Q: On the second paragraph, still at Eaton 3,
[8] where you see a, b and c, an eight inch capillary,
[9] five/sixteenths bulb, C says temp setting 125 degrees
[10] Fahrenheit, do you know what he is referring to there?

[11] A: It says, "Also discussed was the new manual
[12] reset limit control." He is talking about a 25 amp
[13] bulb and capillary reset control. Actually, I think -
[14] and I think it was elevated to a 30 amp reset control.

[15] The RX is, as I recall, UL required
[16] nomenclature for reset-type products. He is asking for
[17] an eight-inch capillary with a five/sixteenths diameter
[18] bulb, temperature set to trip out at 125 degrees
[19] Fahrenheit.

[20] Q: What would that capillary bulb system be set
[21] to trip out?

[22] A: To trip out the power so that the heater
[23] would no longer run.

[24] Q: Would there be a relay associated with that
[25] capillary and bulb apparatus?

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[1] Q: Was that used in conjunction with the hot
[2] water monitor, Hot Water Monitor II?

[3] A: No, this was a separate - this was used in
[4] conjunction with the capillary thermostat, bulb and
[5] capillary thermostat system, the electromechanical
[6] system, not the electronic.

[7] Q: On other spas?

[8] A: Uh-huh, and on - yes, and on Hot Water
[9] Products, also.

[10] Q: Let me get you to turn on the same exhibit to
[11] Eaton Page 4. In the first paragraph he refers to a
[12] target selling price of \$20. Is that for the Hot Water
[13] Monitor II?

[14] A: That's for the solid state control.

[15] Q: And do you know whether that \$20 refers to
[16] all the apparatus that's enclosed within the dotted
[17] line of Clark Exhibit 2, the schematic showing the
[18] Hot Water Monitor II?

[19] A: I can't say that for sure. I don't know.

[20] Q: Do you know who would be included in that
[21] target selling price of \$20?

[22] A: On this particular case, I can't say for
[23] sure. Typically, it was looking for a control that
[24] regulated temperature as well as provided a way of
[25] failsafe high limit control, but in this case, I can't

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[1] A: On this particular one?

[2] Q: Yes.

[3] A: I don't know. Sometimes they were used and
[4] sometimes they were direct line back in this area and
[5] sometimes they were relays. I don't know what this one
[6] was.

[7] Q: So this capillary bulb control would turn off
[8] the heater with no input from the microcontroller; is
[9] that true?

[10] A: This, I believe, is not for the
[11] microcontroller-type product. This is a separate issue.

[12] Q: Would this have been installed on a heater
[13] pack for Hot Water Products?

[14] A: As a sample or as a -

[15] Q: In any way at all.

[16] A: I guess I need to have the question asked a
[17] little bit differently.

[18] Q: Sure. Let me try again.

[19] Do you recall whether a capillary and
[20] bulb control such as that described in this second
[21] paragraph was provided to Hot Water Products?

[22] A: We sold this product to Hot Water Products in
[23] volume through the time that I was Marketing Manager.
[24] This was the early iteration of the bulb and capillary
[25] temperature reset, high temperature reset control.

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[1] say for sure what that is.

[2] Q: On the same page, the last sentence says,
[3] "This have been given verbally to the factory and HWTP
[4] is looking for the sample now." "Now" is emphasized.
[5] Do you know why he would have emphasized "now"?

[6] A: That was Bob's way, as I recall, of trying to
[7] make sure that somebody read it and understood he was
[8] looking for it in a hurry.

[9] Q: Do you think that that sample had been
[10] provided as of August 16, 1983, the date of this
[11] letter?

[12] A: Where he specifically refers to with "now"?

[13] Q: Correct.

[14] A: No.

[15] Q: Do you know if any samples had been provided
[16] prior to that time?

[17] A: I can't say. I don't know for sure. I would
[18] think earlier iterations probably were, but I can't say
[19] for sure.

[20] Q: Let me get you to turn now in the same
[21] exhibit to Eaton Page 2. Do you see the sentence about
[22] halfway down that reads, "One being how to mount the
[23] circuit board in their enclosure. This will be worked
[24] on and tests will be run."

[25] A: Wait a second. I'm on the wrong page.

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Okay, I'm with you.
Q: Okay. "How to mount the circuit board in their enclosure. This will be worked on and tests will be run. They will advise next step."
Do you know what he is referring to there?
A: Not specifically, other than the sub issue relative to the mounting of the board inside their spa.
Q: This is the board for the Spa Monitor II?
A: For the solid state controller.
Q: Is that the same as the Spa Monitor II?
A: I would think so, yes.
Q: Does it appear to you that at this time Hot Water Products is attempting to determine how to mount the Eaton Spa Monitor II in their enclosure?
A: Could I get you to ask that one more time?
Q: Sure.
A: I just want to make sure I'm straight on what you asked.
Q: On the basis of this letter, is Hot Water Products attempting to figure out how to mount the Spa Monitor II in their enclosure?
A: I'd say it's probably, the way I read this, I would think it's a joint contemplation, both Hot Water Products as well as Eaton, I think.

[11] Monitor II, they being Hot Water Products?
[12] A: For this particular - for this particular
[13] version, probably in the development stage. I can't
[14] say for earlier versions. I don't know.
[15] Q: Is it safe to say that it doesn't look like
[16] they are ready to commercially market such a unit at
[17] the time of this letter?
[18] A: I can't say for sure, but I'd say it's
[19] implied.
[20] Q: Let me refer back to Clark Exhibit 1, the
[21] schematic of the Spa Monitor II on the last page of
[22] that exhibit. Do you see where it says optional freeze
[23] protect?
[24] A: Yes.
[25] Q: What does that refer to?
[26] A: I believe it's referring to a protection
[27] of the system so that as the temperature nears the
[28] freezing of water, an activity would occur, most
[29] probably turning on the bubbler or the pump for
[30] circulating the water so the water didn't freeze.
[31] Q: And that was optional?
[32] A: I think for the control it was optional.
[33] Q: Is there any specific freeze protection
[34] equipment shown on this diagram?
[35] A: I don't see anything particular other than

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Q: Do you think either party had successfully mounted the Spa Monitor II in a Hot Water Products enclosure as of this time?
A: My guess is probably, but there may have been other issues relative to things that were previously in the way.
Q: Do you see where he says they have a lot of details to be worked out?
A: Uh-huh.
Q: What do you think he is referring to?
A: I would think other things that are in the panel that may be obstructing the ability to put the PC board in the panel, that's my best guess. I can't say for sure.
Q: Is it safe to say that at this time, September 26, '83, the date of this letter, that the Spa Monitor II had not been successfully installed in a Hot Water Products spa or spa control?
A: I wouldn't necessarily say that. I would believe that one was probably installed and had run, but there were probably issues relative to doing it in conjunction with all the other apparatus within their control head.
Q: How far along do you think they were in developing a commercial product incorporating the Spa

[1] the reference to the optional.
[2] Q: So the freeze protection would have been done
[3] solely in software?
[4] A: There would have been some - to get freeze
[5] protection there would have been some type of an input
[6] giving the system what temperature the water was at
[7] the sensing point and then there would be an output to
[8] create the action, my best guess, probably to turn on
[9] the pump to circulate the water. That's not depicted
[10] here, this is just - it was optional. I'm sure that
[11] is what would have been put in.
[12] Q: What about temperature override, what's that
[13] referring to?
[14] A: I can't say for sure the terminology.
[15] Q: I may have asked this already, but do you
[16] recall what type of microcomputer was used in the
[17] Spa Monitor II as shown in this diagram?
[18] A: I don't recall this exactly. I don't know
[19] exactly what was used.
[20] Q: Did you ever see the board for this Spa
[21] Monitor II?
[22] A: I have a vague recollection of a board with a
[23] silicon chip on it and a remote mounted LED, with the
[24] ribbon cable, is probably the best I can recall, with a
[25] pad-type input, with oil can switches, I think, below

(1) the packs.

(2) Q: Was there - do you remember more than one
(3) relay?

(4) A: I don't, I don't recall.

(5) Q: All right. Let me get you to refer back to

(6) Clark Exhibit 2, the page labeled Eaton 1.

(7) The second paragraph discusses freeze

(8) protection.

(9) A: Okay.

(10) Q: Can you tell me what you recall about the
(11) freeze protection that was performed by Spa Monitor II:
(12) what exactly did it do?

(13) A: I can't say specifically for the Spa Monitor
(14) II. I can only speak to my recollection of the solid
(15) state controllers that we were putting out at the time
(16) and the freeze protection, at a particular temperature,
(17) and it was around 40 degrees, would - there was a
(18) temperature sensor that provided the input for the
(19) temperature somewhere near the - with the location
(20) of the piping of the spa, I think, in the outflow.
(21) I'm not sure where exactly it was located. It would
(22) then - once it tripped below 40 degrees or whatever
(23) the temperature was for the spa freeze protection, it
(24) would turn on the pump and circulate the water.
(25) Q: So you think the Spa Monitor II was installed

(1) A: That, I don't recall.

(2) Q: Do you remember what temperature the Spa
(3) Monitor II would perform some sort of overheat
(4) protection?

(5) A: We typically tended to want to try to go
(6) by the UL 109 degrees. That was usually the target
(7) number, but there were also situations relative to
(8) specifics within a system and what the temperature
(9) readout might - what the temperature sensed might
(10) really be to equate to 109 degrees in the tub, so
(11) sometimes it was system specific.

(12) Q: Now, you said that when the temperature fell
(13) below 40 degrees or some set point the Spa Monitor II
(14) would turn on the pump. Can you show me where that
(15) output is on the schematic attached to Clark Exhibit 2?

(16) A: I think it's just - it's on there. It's

(17) marked Exhibit 1.

(18) Q: Oh, I'm sorry. Exhibit 1, you're right.

(19) A: The only reference here that I see is really
(20) the optional freeze protect. This appears to be the
(21) device that, as this one was drawn up, freeze
(22) protection was optional.

(23) Q: So the relay that would perform any
(24) activation of a pump in response to a signal from the
(25) microcomputer if the temperature fell below the freeze

(1) in a spa?

(2) A: I can't say. I don't know.

(3) Q: You never saw it installed in a spa; is that
(4) correct?

(5) A: I saw solid state controllers installed in a
(6) spa. I just don't know the terminology, Spa Monitor II.

(7) Q: Solid state controllers manufactured by
(8) Eaton?

(9) A: Correct.

(10) Q: And whose spa were they installed in?

(11) A: There was a Hot Water Products spa pack

(12) with - I don't know who manufactured the spa itself.

(13) They manufactured spa packs. They didn't actually do

(14) the spa, but it was in the Hot Water Products unit.

(15) There was one in someone else's unit and I don't recall
(16) who it was.

(17) Q: Did the freeze protection turn on the heater
(18) in addition to the pump or simply the pump?

(19) A: At 40 degrees it turned on the pump. I have
(20) some recollection of discussions of if it went down to
(21) a particular temperature the heater then came on, but
(22) I - that's the best recollection I've got.

(23) Q: Do you ever recall whether those discussions
(24) were implemented in the software of any controller
(25) manufacturer by Eaton?

(1) point is not shown on this diagram; is that correct?

(2) A: It's shown as an optional on this diagram.

(3) Q: Does it show a relay, an optional relay?

(4) A: In the little block here it gives you an
(5) optional switching device for some type of freeze
(6) protection.

(7) Q: Why is that connected, shown as connected to
(8) the temperature control?

(9) A: That, I don't know.

(10) Q: Let me hand you what has been previously
(11) marked as Exhibit 42. This is a United States Patent
(12) 2,536,215. We will just call it the 215 for short,
(13) if that's okay with you.

(14) A: Fine.

(15) Q: I'd like to get you to flip to three pages
(16) from the end, Column 21.

(17) In Column 21 about halfway down, you see
(18) a number one.

(19) A: Okay.

(20) Q: And I would like to read this and have you
(21) compare what I'm going to read to you with the diagram
(22) shown as the last page of Clark Exhibit 1, the
(23) schematic of the spa, Spa Monitor II.

(24) MR. BRENNAN: Counsel, before you get
(25) started, I want to put you on notice right now, I'm

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going to object to any line of questioning if you are going to ask him to do any sort of claim interpretation or apply the claims of this patent to any of these documents. I think the scope of this Notice is limited to subject matter that this goes beyond.

MR. WESTBY: Well, for the record, I think it's within the scope of the Notice, but I think this will also be fairly simple and I intend to ask him specific questions about what is and is not on the last page of Clark Exhibit 1.

MR. BRENNAN: Well, Counsel, I think that the patent certainly speaks for itself and I don't see any need for this witness to interpret what is or is not inside this claim.

MR. WESTBY: No, no.

MR. BRENNAN: Either subject matter or verbiage.

MR. WESTBY: I want to ask him what is and is not shown on the schematic of the Spa Monitor II.

MR. BRENNAN: If you want to use the schematic and ask him any questions you have about what is or is not shown in that diagram, that's fine, but to have him look at claim terminology with no foundation at all that he has ever seen this patent before, no foundation at all that he knows what you mean by these

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(1) Q: Do you see anything else in this diagram that
(2) could be defined as a second temperature probe?

(3) A: I'm not sure exactly what the other apparatus
(4) is coming off of the temperature controller.

(5) Q: Fair enough.

(6) Where would the temperature probe shown
(7) on this diagram be installed in the spa?

(8) A: Somewhere in the water flow, depending upon
(9) the spa system itself.

(10) Q: At any particular place in the water flow?

(11) A: It would depend on the system. It's really
(12) manufacturer defined, quite honestly. It could be
(13) down, down in the water of the heater, could be
(14) somewhere closer to the inflow or the outflow of the
(15) system itself, close to the tub. It would really be
(16) somewhat manufacturer dependent at that time.

(17) Q: Did most manufacturers specify where they
(18) would want that temperature probe to be located?

(19) A: As I recall, yes, unless there was a better
(20) idea provided by something we were working on with
(21) them.

(22) Q: And where typically would they ask that that
(23) temperature probe be located?

(24) A: I'm not sure that there was a typical that I
(25) can answer, because they tended to be in a number of

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terms, I'm going to object.

MR. WESTBY: Certainly, no, I just plan to read simple descriptions of pieces of apparatus which I think he is aware and ask him if those pieces of apparatus are shown in the schematic of this Spa Monitor II.

For example, does the schematic show a heater or a heating element.

MR. BRENNAN: And just for the record, Counsel, are you asking him to interpret that or just simply asking within the four corners of the document what he believes is shown?

BY MR. WESTBY:

Q: Within the four corners of this document is there shown what you would interpret as a heating element or a heater? I don't see one.

A: I don't see a heater on here.

Q: And how many temperature probes are identified on the schematic of the Spa Monitor II?

A: There is a temperature probe over here identified as a probe and there is something that comes off the temp controller.

Q: Is it safe to say that the schematic shows a single temperature probe?

A: As defined, that shows a temperature probe.

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(1) different areas.

(2) Q: How about Hot Water Products?

(3) A: I don't recall exactly where they had theirs.

(4) Q: How about Ramco?

(5) A: I don't recall where he had his. I

(6) couldn't - I don't have a good - I don't remember
(7) who did what specifically with the temperature probe.

(8) Q: And you don't remember what any of the
(9) possible -

(10) A: I remember there being probes located in the
(11) piping coming away from the heater going into the tub.

(12) I remember there being probes that would pick up the
(13) flow of the water coming out of the tub that would try

(14) to give us a sense of the temperature of the water as
(15) it exited the tub. I remember different locations, but

(16) I can't tie them specifically to who did what.

(17) Q: Okay. And would that same probe be used for
(18) optional freeze protection as is shown in this diagram?

(19) A: I don't know.

(20) Q: Do you see any other probe -

(21) A: No.

(22) Q: - that could be used for freeze protection?

(23) A: No, but with the optional there, I don't know
(24) what that means, what else would be fit in there.

(25) Q: Sure. Do you recall whether there was a

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- (1) single threshold at which time the pump came on in the
(2) Spa Monitor II should a freeze signal be detected?
(3) A: By a threshold, do you mean a particular
(4) temperature?
(5) Q: A particular temperature where the pump
(6) came on?
(7) A: On this particular Spa Monitor II, I don't
(8) know. I know the solid state controllers, something
(9) around 40 was sort of a typical number.
(10) Q: And tell me what you mean by the solid state
(11) controllers.
(12) A: The ones that we were making samples on,
(13) the units that we provided samples that had freeze
(14) protection on them.
(15) Q: And those were samples that were developed
(16) after the Spa Monitor II as shown on this diagram?
(17) A: I can't say chronologically, I don't know.
(18) Q: You don't know whether they were before or
(19) after -
(20) A: I don't recall, no.
(21) Q: - what's shown on this diagram?
(22) A: No.
(23) Q: Do you recall a company called Spa-Trol,
(24) Incorporated?
(25) A: The name, I do recollect the name, yes.

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- (1) Q: The name, Charles Lyle or Chuck Lyle?
(2) A: Chuck Lyle, I remember the name. Chuck Lyle.
(3) Q: Were you a supplier to Chuck Lyle or Spa-Trol?
(4) A: I don't - I can't say for sure, but I believe
(5) we may have supplied bulb and capillary controls to
(6) them, to the best of my recollection, but I don't know
(7) that for sure. I can't remember for sure.
(8) Q: Do you recall whether or not you provided
(9) electronic controls to Spa-Trol or microprocessor-based
(10) controls to Spa-Trol?
(11) A: I don't know.
(12) Q: Now, this relay as shown on the schematic is
(13) used to turn the heater on and off; is that correct?
(14) A: It appears that way.
(15) Q: Is there a relay on this diagram that turns
(16) the pump on and off?
(17) A: I don't see anything particular, although the
(18) relay is - the way I would sort of define this is the
(19) stuff as outside the Eaton supplied system is just sort
(20) of generically there. I don't - it's not specific.
(21) Q: Is there a relay driver within the Eaton
(22) supplied equipment that turns the pump on and off?
(23) A: There is a relay driver, but it's only
(24) defined as a relay driver.
(25) Q: Okay. Were there later solid state designs

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- (1) which included relay drivers for both the heating
(2) element and for one or more pumps?
(3) A: I know that there were designs that provided
(4) the ability to turn on the pump and turn on the heater,
(5) but I don't have any knowledge of specifically what the
(6) routine was.
(7) Q: Do you recall whether or not there were any
(8) optical isolators on any of those later solid state
(9) controllers?
(10) A: I couldn't say, I don't know.
(11) Q: Were any of those later solid state
(12) controllers ever advertised by Eaton?
(13) A: I don't know. I can't answer that. I don't
(14) know.
(15) Q: Were any of them ever sold to spa OEM's or
(16) spa manufacturers?
(17) A: As samples, I'm sure. As production, I don't
(18) have any knowledge of particular production.
(19) Q: So none of the later solid state controls
(20) ever made it into commercial production?
(21) A: Not as volume production.
(22) Q: What sort of production did they make it
(23) in as?
(24) A: Small sample-type production.
(25) Q: Limited quantities?

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- (1) A: Yes.
(2) Q: And hand built?
(3) A: Well, probably depends on how you define hand
(4) built, but probably ran down the line, but not volume.
(5) Q: For evaluation purposes?
(6) A: I would - to the best of my recollection, I
(7) think so.
(8) Q: And why do you think that Eaton never got in
(9) the business for providing commercial spa temperature
(10) controllers?
(11) A: As I recall, we were too expensive.
(12) Q: And you eventually just abandoned the market?
(13) A: Yes.
(14) Q: And when would that have been?
(15) A: That, I can't say. In fact, I guess I can't
(16) for sure that yes. It was just not pursued during
(17) the time that I was out there. I don't know what's
(18) happened since, so I don't know.
(19) Q: To the best of your knowledge, does Eaton
(20) currently provide any spa controller to the market?
(21) A: I believe Eaton provides bulb and
(22) capillaries. I don't know about electronics.
(23) MR. WESTBY: Take about a five-minute
(24) break?
(25) (Brief recess.)

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BY MR. WESTBY:

Q: Okay, just a couple more questions, then I'll be done.

As far as you know, were any parts lists ever developed for the Spa Monitor II or any later solid state controller designs?

A: I can't say for sure. I don't know.

Q: What about cost specifications?

A: I know there were cost things that were worked up. There was a - I know there was a lot of knowledge that we were too expensive.

Q: Do you recall whether materials for printed circuits were ever designed in anticipation of commercial manufacturing?

A: I would say yes, but I can't absolutely say for sure. My belief is that would have been.

Q: Were you able to find any of these materials?

A: No.

Q: So as far as you know, Eaton has none of those materials today?

A: To the best of my knowledge.

Q: With regard to the earlier systems that used more than one temperature probe, do you know where those additional probes were to be located in a spa?

A: Not specifically. Again, it was somewhat

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(1) A: No.

(2) THE WITNESS: Are you guys Butler & Binion?

(4) MR. CRANE: Yes.

(5) THE WITNESS: No.

BY MR. WESTBY:

(7) Q: Did you do anything special to prepare for the deposition today?

(9) A: Anything particular? Just a few discussions with both Roger and Mike.

(11) MR. WESTBY: No further questions.

RE -EXAMINATION

BY MR. CRANE:

(14) Q: I think I just have a couple more.

(15) Mr. Gouldley, let's talk for a second about Spa Monitor II and the schematic drawing there.

(17) A: Okay.

(18) Q: Is it safe to say that Spa Monitor II is a device that had an LED display in a keyboard that was a user's access to the equipment?

(21) A: To the best of my recollection for that specific name, Spa Monitor II, I believe so.

(23) Q: Okay. And it also had a temperature probe that was in the water in the spa?

(25) A: Correct.

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(1) dictated by the system. I know there was a freeze protection somewhere near the obvious freeze point, depending upon how that was defined by the manufacturer. There was an overtemp somewhere on the return side of the heater, but specifically, it would fluctuate by manufacturer.

(7) Q: Are there any applications of those additional probes other than freeze protection or high limit protection that you can recall?

(9) A: The only probe applications I have dealt with are freeze protection, temperature regulation and high limit temperature.

(11) Q: Did any Eaton spa ever have a pH probe?

(13) A: I have no memory of that.

(15) Q: Do you know whether the microcomputer that was used on any Eaton spa control was capable of maintaining a historical log?

(17) A: Not that I remember, no.

(19) Q: Have you ever met Ron Clark?

(21) A: Not that I can recall.

(23) Q: Were you contacted by Clark Manufacturing prior to being noticed for this deposition?

(25) A: No.

(27) Q: Did you spend any time talking to attorneys at Butler & Binion prior to this deposition?

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(1) Q: And that temperature probe measured the temperature and sent a signal to the microprocessor?

(3) A: Right.

(5) Q: Which then, depending on what was on the keypad and what the temperature reading was, would turn off or turn on the heater?

(7) A: Correct.

(9) Q: And turn on or turn off the pump?

(11) A: Correct.

(13) Q: And is it your testimony that either prototypes and/or samples of that device, Spa Monitor II, were provided by Eaton to at least Hot Water Products and Ramco?

(15) A: We have provided samples of a device very much like this to Hot Water Products or Ramco.

(17) Q: And you also provided samples similar to Spa Monitor II with multiple temperature probes to Ramco and Hot Water Products; is that correct?

(19) A: We supplied them to somebody like Ramco and Hot Water Products. I can't say for sure that they both got multiple probe versions.

(21) Q: And is it also true that Spa Monitor II was taken by Eaton to the spa show in the spring of 1984 in Reno, Nevada?

(23) A: Yeah, that date being the best of my

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(1) recollection. it was the 1984 show, and it was in Reno.

(2) MR. CRANE: That's all the questions I

(3) have.

(4) R E -EXAMINATION

(5) BY MR. WESTBY:

(6) Q: I just have two followup questions,

(7) Mr. Gouldsey.

(8) With regard to the Spa Monitor II or

(9) devices related to it that you just testified you gave

(10) to somebody like Hot Water Products or Ramco, do you

(11) have any documents showing that those devices were

(12) supplied?

(13) A: No.

(14) Q: Do you have any documents showing exactly

(15) what was supplied?

(16) A: Nothing beyond what we have given today, no.

(17) MR. WESTBY: Okay. I'm done.

(18) (Deposition concluded.)

(19)

(20)

(21)

(22)

GLENN GOULDEY

(23)

(24)

(25) Date

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(1) State of Michigan)

(2) County of Oakland)

(3) Certificate of Notary Public

(4) I do hereby certify the witness, whose attached

(5) testimony was taken in the above matter, was first

(6) duly sworn to tell the truth; the testimony contained

(7) herein was reduced to writing in the presence of

(8) the witness by means of stenography; afterwards

(9) transcribed; and is a true and complete transcript

(10) of the testimony given.

(11) I further certify that I am not connected by

(12) blood or marriage with any of the parties; their

(13) attorneys or agents; and that I am not interested.

(14) directly or indirectly, in the matter of controversy.

(15) In witness whereof, I have hereunto set my

(16) hand this day at Troy, Michigan, County of Oakland,

(17) State of Michigan.

(18)

(19)

(20) Rene L. Twedt, RPR/CSR-2907

(21) Registered Professional Reporter

(22) Certified Shorthand Reporter

(23) Notary Public, Oakland County, Michigan

(24) My Commission Expires: July 2, 1998

(25)

Eaton Corporation
Temperature Controls Division
Beverton Plant
13725 S.W. Milliken Way
Beverton, Oregon 97005
Telephone (503) 644-0131

SPA MONITOR II - FUNCTIONAL DESCRIPTION

Product: A digital thermometer for use on a spa or hot tub, with an over-temperature alarm, a freeze alarm, and which displays temperature on a red 3 digit display. An alarm is provided which will open a relay coil circuit of 6 v, 20 ma, any time the display reaches 109°F., or more. This output remains enabled until temperature is reduced below 104°F., and then the reset switch is activated from the non-activated state.

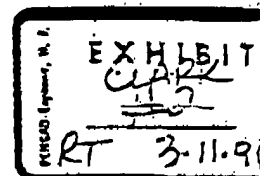
Freeze protection is provided by activation of spa system at any time water temperature is detected to be below 40°F., and system will remain on until water temperature reaches 50°.

Temperature detection is by a thermistor probe in a well. Accuracy is $\pm 1^\circ\text{F.}$ between 85°F. and 104°F., and reading is adjustable to match a mechanical pointer. No control functions are provided for time, alarm, or temperature control, except freeze protection.

An open or shorted sensor causes a display of "FAIL." This will be displayed below 32°F. or above 125°F.

The display will be provided on a 3 foot extension, and (2) .187 tabs will be provided on the control for connection of a remote reset switch.

Power Requirements: 5.0 v minimum, regulated
250 ma maximum



Issue 1/13/83
Rev. _____

Eaton 1

Hot Water Bes. available Copy

ADDRESS

7215 Garden Grove Blvd. Unit H & J Garden Grove, Calif

DATE OF CALL

9/13/88

CALL DURATION

NEXT CALL DATE

PLANNED
CALLCOLD
CALL

PERSONNEL

Jim Morrison Sr & Jim Morrison Jr.

CALL
RESULTS:QUOTED ☐SAMPLED ☐ENGRG.
DETAIL ☐PRODUCT ☐POTENTIAL ☐

Received Solid State Temperature Control from the factory. Went by and discussed with Jim and found he was still very interested. They have a lot of details to be worked out. The big one being how to mount the circuit board in their enclosure. This will be worked on and test will be run. They will advise next step.

ACTION
REQUIRED:QUOTE ☐SAMPLE ☐ENGRG.
EVALUATION ☐DELIVERY ☐MAILING ☐OTHER ☐EXPLAIN
BELOW

ADDITIONAL INFORMATION

SALESMAN

Bob Dutton

DATE

9/26/88

Eaton 2